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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,653	08/26/2005	Klaus Dieter Liedtke	0745/73621/NHZ	7422

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EXAMINER

LENNOX, NATALIE

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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04/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,653	Applicant(s) LIEDTKE ET AL.	
	Examiner NATALIE LENNOX	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/09/2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action has been issued in response to the amendments filed on January 9, 2008. Claims 1-5 are pending with claim 2 cancelled, and claim 1 amended.

Drawings

1. The drawings were received on January 9, 2008. These drawings are acceptable.

Response to Arguments

1. Applicant's arguments filed January 9, 2008 have been fully considered but they are not persuasive.

Regarding claim 1, applicant emphasized that as opposed to Bennett's method their method compares the parts-of-speech categories of the recognized word sequences with the sequence of the part-of-speech categories of the predetermined sentence models. Examiner respectfully disagrees because clearly in Bennett's Col. 25, lines 24-35, the stored questions, which clearly represent the claimed predetermined sentence models, are processed by the morphological linguistic engine which tokenizes the stored question's text string, tags the parts-of-speech and groups them, later computing the noun phrases. Col. 25, lines 35-47, clearly describe comparing the already processed user's query (recognized word sequence) containing the part-of-speech tags with the stored questions (predetermined sentence models) in order to determine the best match between them both (agreement).

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett (US Patent 7,050,977) in view of Young et al. (US Patent 7,120,582).

As per claim 1, Bennett teaches a method for natural voice recognition based on a generative transformation/phrase structure grammar, comprising the following steps:

syntactically reconstructing the spoken phrase from the recognized words using a grammar (Col. 34, lines 34-51, grammar 602G from Fig. 4A and Col. 27, lines 34-41), characterized in that the syntactic reconstruction of the spoken phrase comprises the following steps:

allocating the recognized words to part-of-speech categories, including verbs, nouns, etc. (Col. 17, lines 53-67 and Col. 34, lines 34-51, and also Fig. 8);

allocating the part-of-speech categories to nominal phrases and verbal phrases (Col. 34, lines 34-51, also Fig. 8);

combining the nominal phrases and verbal phrases according to syntactic rules into objects, providing various predetermined sentence models including part-of-speech categories (Col. 34, lines 34-57, and Col. 7, line 29 to Col. 8, line 3, specifically in Col. 7, from line 61 to Col. 8, line 1; wherein the sentence model is represented by the noun phrases (NP) of the stored questions.); and

comparing the part-of-speech categories of the recognized word sequences with the sequence of the part-of-speech categories of the predetermined sentence models, and, in the case of an agreement, a sentence is considered as recognized and an action in a voice controlled application is triggered. (Col. 24, line 56 to Col. 25, line 47, specifically Col. 25, lines 24-47, which describe the process of comparing the user's query (recognized word sequence) with the stored questions (predetermined sentence models). Also Col. 22, lines 2-5).

However, Bennett does not specifically mentions analyzing a spoken phrase for triphones contained therein; and forming words, contained in the spoken phrase, from the recognized triphones with the aid of dictionaries.

Conversely, Young et al. teaches analyzing a spoken phrase for triphones contained therein (Young's Col. 10, lines 23-44, wherein command may include words, phrases, or sentences (Col. 8, line 67)); and

forming words, contained in the spoken phrase, from the recognized triphones with the aid of dictionaries (Young's Col. 10, lines 23-44, wherein command may include words, phrases, or sentences (Col. 8, line 67)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the feature of analyzing a spoken phrase for triphones and forming words from the recognized triphones as taught by Young for Bennett's method because Young provides techniques for creating and using

fragmented word models to increase effective size of an active vocabulary of a speech recognition system, wherein the active vocabulary represents all words and word fragments that the speech recognition system is able to recognize, and wherein each word may be represented by a combination of acoustic models. As such, the active vocabulary represents the combinations of acoustic models that the speech recognition system may compare to a user's speech to identify acoustic models that best match the user's speech.

As per claim 3, Bennett in view of Young, teach the method as claimed in claim 1, characterized in that each sentence model has a number of variables allocated to part-of-speech categories which are filled with the corresponding part-of-speech categories of the recognized words (Bennett's Col. 33, lines 30-44 and Col. 34, lines 34-49, wherein the "noun phrases" represent sentence models).

As per claim 4, Bennett in view of Young, teach the method as claimed in claim 1, characterized in that the words to be recognized are held available subdivided into various part-of-speech categories in the dictionaries (Bennett's Col. 34, lines 39-49 and Col. 35, lines 7-13).

As per claim 5, Bennett in view of Young, teach the method as claimed in claim 1, characterized in that the objects or parts thereof are linked to corresponding action

parameters of a voice-controlled application (Bennett's Col. 22, lines 2-5, and Col. 7, line 59 to Col. 8, line 7).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATALIE LENNOX whose telephone number is (571)270-1649. The examiner can normally be reached on Monday to Friday 9:30 am - 7 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NL 03/24/2008

/Richmond Dorvil/
Supervisory Patent Examiner, Art Unit 2626